

Special Article

Argentina's Economic Reforms Expand Growth Potential for Agriculture

Argentina, one of the world's leading agricultural exporters, may be poised to realize the full agricultural production potential afforded by its temperate climate and some of the world's richest farmland. A combination of dramatic market-oriented reforms and strong price incentives in the 1990's have led to key changes in the way the country produces and markets agricultural commodities.

Prior to the reforms, successive ineffectual or flawed government programs had resulted in extended periods of economic instability marked by chronic public sector deficits, endemic and highly variable inflation, and low savings and investment. When the current administration took office in July 1989, the economy was in crisis and the government insolvent. Inflation during July 1989 alone was 200 percent, and the economy was experiencing unprecedented stagnation. Decades of neglect had left Argentina with a deficient infrastructure, a poor communications network, falling labor productivity, and growing poverty.

The Law of Convertibility, which went into effect in April 1991 and guaranteed a one-to-one conversion of pesos into dollars, began reining in both inflation and the fiscal deficit. In addition to halting the government's inflationary financing, the administration implemented a far-reaching economic restructuring program that included wholesale privatization of government-owned industries and utilities, deregulation of the economy, restructuring of government institutions, and reforms in the country's legal framework. The new policies have set the country on a path of fiscal and monetary prudence that has lowered inflation and spurred private investment.

In the agricultural sector, the reforms eliminated the institutions and policies of the past five decades that had shifted resources from agriculture to other sectors of the economy. Elimination of the National Grain and Meat Boards, once important vehicles for government intervention in the marketing system, was largely symbolic, as many of their functions had already been transferred to the private sector. But combined with the government's initiatives to divest itself of Board-owned inland and port facilities, it represented another solid reform.

Agriculture benefited from other privatization initiatives, including the granting of road and railroad concessions to the private sector, privatization of communications and power sectors and ports, and partial sale of the state oil company, as these actions increased the efficiency of these sectors and thus reduced farmers' costs. The main trade policy instruments for transferring wealth from agriculture to other industries—export taxes on agricultural commodities and tariffs on imported inputs—were gradually reduced or rescinded. The Law of Convertibility eliminated the ability to tax agricultural exports indirectly through manipulation of the exchange rate. This, coupled with the trade



Secretary of Agriculture, Argentina

policy reforms, removed the distortions between domestic and international prices.

As a result of the reforms, Argentina's gross domestic product (GDP) grew 6 percent per year on average from 1991 to 1997, increasing each year except 1995. However, the agricultural sector continued to stagnate for several years. As with other export-oriented sectors, agriculture had been handicapped by a fixed and increasingly overvalued real exchange rate. The appreciation of the peso squeezed the profits of Argentina's commodity producers, whose income was derived from dollar-denominated international commodity prices, while their costs for domestic goods and services were denominated in pesos. Domestic taxes had increased, real interest rates remained high, and access to credit was insufficient. This created tremendous pressure on the farm sector to become more efficient, while encouraging major farm groups to seek assistance from the government.

In response to farmers' financial stress, the government announced additional policy measures in August 1993. The Fiscal Pact, as these measures were collectively called, was designed to reduce both federal and local taxes that were constraining the ability of Argentina's agricultural sector to compete

Weights of commodities presented in this article are in metric tons.

1 hectare = 2.47 acres

in world markets. Most important, the government agreed to eliminate the asset tax on land. Other federal and local taxes were scheduled for elimination or reduction over 1993-95. It should be noted, however, that no substantive government policies, programs or subsidies were enacted to encourage production of grains, oilseeds, or livestock in Argentina, nor do any exist currently. At the same time as Fiscal Pact measures were being implemented, the private sector was becoming more efficient and developing new and innovative marketing and financial tools for producers.

Argentina's Crop Producers Cash in on Reforms

During the 1996/97 marketing year, the vast array of changes in the Argentine economy and the agricultural sector allowed crop producers to respond aggressively to the strong international commodity prices of the previous season. Farmers dramatically increased their plantings and their use of productive inputs in 1996/97. Aided by near-perfect weather, they harvested record wheat, corn, and rice crops. Land harvested to grains and oilseeds in 1996/97 totaled about 22 million hectares, 3 million above the previous year's record high. An estimated 2-million-plus hectares of good pasture land, previously devoted almost exclusively to cattle, was planted to crops.

Before the 1995/96 season, many analysts had assumed that the 1983/84 record of 18.7 million hectares represented an upper bound on the amount of land available for grains and oilseeds, which could rise only with significant investment. While some investment did take place, the sector has shown that it is much more capable of responding to high prices than previously thought.

In addition to record area harvested, 1996/97 saw record yields for corn and rice and near-records for wheat and sorghum. Total grain production (35.6 million tons) and exports (23.4 million tons) reached record levels. In previous years, these gains would have come at the expense of oilseeds, but the area harvested to oilseeds was the second highest ever. And while soybean yields were the lowest in 8 years, production of all grains and oilseeds together totaled almost 53 million tons, exceeding the 50-million mark for the first time and eclipsing the previous production record by almost 8 million tons.

For 1997/98, preliminary indications are that Argentina is poised to enjoy a second record breaking harvest in as many years. Even though planted area for all commodities dropped about 3 percent over the previous year, expected yields have more than compensated due to extremely favorable weather conditions. Total grain production is estimated at 36 million tons and total oilseed production at 23 million, both records. Wheat production is estimated at 13.9 million tons, 2 million less than the previous year, but record production of corn (16.5 million tons) and soybeans (16 million tons) is expected.

Last year, the government announced a goal for grain and oilseed production of 60 million tons by 2000. Even though the extremely favorable weather of this year, which is estimated to

Argentine Agriculture

Climatic and topographical variations divide Argentina into six distinct agricultural regions, only one of which—the Pampa—is conducive to widespread cultivation of grains and oilseeds. The Argentine Pampa region is located in the east-central part of the country and occupies an area slightly more than 50 million hectares, or about 18 percent of the country's total land area. The region can be divided into three zones according to predominant use: cropping, mixed crop/livestock, and livestock.

The typical producer in the Pampa tends to operate a joint grain-oilseed-livestock enterprise, with each activity competing for land. Cattle operations in Argentina can be classified into three major systems: cow-calf (breeding), cow-calf/feeding, and feeding/finishing. Larger operations often own separate cow-calf and fattening operations. More than 97 percent of total beef output is produced from cattle that are grazed on pasture, either native or improved (planted to grasses or small grains).

Grain and oilseed production is both competitor and complement to cattle raising in Argentina. Crop competition with cattle tends to be limited to steers and feeder heifers, as cow-calf production in Argentina is located mainly in areas not suited to crop production. In making year-to-year decisions about the mix of crops and pastures, the producer is often influenced as much by current weather conditions, ages and numbers of cattle on hand, and rotational considerations as by current prices. At the same time, crop production and cattle raising are considered highly complementary, given the practice of rotating crops with sown pastures to maintain soil fertility.

have produced 59 million tons of grains and oilseeds, should not be mistaken for the norm, it seems likely that the 60-million mark could be surpassed before 2000. While the potential for drawing additional land into grain and oilseed production in the future is debatable, the potential for increasing yields remains bright.

Future yields should increase with growth in use of inputs such as fertilizers and specialized farm equipment. While many production practices common in the U.S., including a high level of mechanization, have been used in Argentina's principal grain and oilseed producing region, the Pampa, the use of fertilizers and chemicals had traditionally been extremely low in Argentina. In addition to its high cost, other factors holding down use of fertilizer included the richness of the soil and its high content of organic matter; the rotation of crops with sown pastures; and development of crop varieties not particularly responsive to fertilizer.

Argentina has always relied on imports for most of its fertilizer needs, and the costs of imported inputs began to drop after passage of the Law of Convertibility and the reductions in import tariffs. By 1995, fertilizer use had reached a record 1.2 million

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Argentina Is Among the Top Five Exporters Of Major Commodities

Commodity exports	Argentina's world rank
Wheat	5
Coarse grains	2
Soybeans	3
Soymeal	2
Soyoil	1
Sunflowerseed	3
Sunflower meal	1
Sunflower oil	1
Beef	5

Based on estimated exports of crops and products in 1996/97, and estimated exports of beef for calendar 1997.

Economic Research Service, USDA

tons, compared with less than 100,000 tons 10 years earlier. In 1996, fertilizer consumption increased again, vaulting to 1.6 million tons, five times the 1991 level. Sales of agrochemicals (primarily herbicides) also increased sharply, nearly tripling between 1991 and 1996.

The growth in use of these inputs was accompanied by an increase in planting of improved seed varieties. Use of chemicals and improved seeds are expected to continue rising as costs decrease and more farmers realize the potential gains. During the 1996/97 season, fertilizer was applied on an estimated 65 percent of wheat and 50 percent of corn area, up from an estimated 50 and 25 percent, respectively. While over 90 percent of the fertilizer used is currently imported, fertilizer companies are making investments to manufacture it locally. With urea consumption in Argentina expected to increase to 1.2-1.5 million tons by 2000, the country will probably still have to import large quantities of fertilizer.

With increasing confidence in the agricultural sector, farmers stepped up purchases of machinery such as tractors, harvesters, and irrigation equipment. In 1995 alone, irrigation equipment sales, benefiting also from lowered import costs, were double the total for all previous years.

Changes in farm management practices will also push up yields. No-till cropping, for example, which is becoming more common, particularly for soybeans, has led to more intensive land use as soybeans are double-cropped with wheat.

With greater reliance on the market, Argentine farmers have been forced onto a steep learning curve in managing resources to increase output, and in marketing the output. Farmers are making more extensive use of marketing tools, such as futures and options, to lock in favorable prices.

During calendar-year 1997, an estimated 20 million tons of commodities was traded on the futures market, up nearly 400 percent over 1992. The government has been championing the use of futures and options to promote more orderly marketing of grain and to minimize the effects of price swings on farmers. The upward trend in use of these instruments is expected to continue with the recent elimination of the 27-percent profit tax on for-

eign commodity trading firms doing business in Argentina's Boards of Trade. Brazilian trading firms, in particular, are expected to increase their presence in the Argentine futures market, as Argentine commodities comprise a large share of Brazilian imports. Some traders estimate an increase of about 5 million tons in total exchange volume as a result of the new regulations, providing needed additional liquidity to the market.

Argentina's farmers have also benefited from privatization of much of the transportation and handling infrastructure that has generated major improvements in rail service and port facilities and an increase in export capacity. Privatized railways carried over 17 million tons of freight in 1996, 12 percent more than in 1995 and 29 percent above 1994. About 21 percent of the country's grains and oilseeds are transported by rail, and grain accounts for 46 percent of all rail freight. Greater competition and efficiency gains have reportedly lowered freight costs by 20-25 percent in the grain producing region.

Major expansion and upgrades in port facilities have occurred near Rosario, along the Parana River. Exports from the Parana ports, mainly grains and oilseeds and their products, have increased from about 16 million tons in 1992 to nearly 21 million tons in 1996. This growth is expected to continue, as many firms are expanding their loading and processing capacity for grains and oilseeds. A major project is also underway to develop the waterway further north into Paraguay and Brazil so that products, mainly soybeans, can be brought in large quantities by barge for processing and export through Argentina.

Livestock Sector Fails To Match Crop Gains

Argentina has been associated with beef production and exports since at least the turn of the century. It is currently the world's sixth-largest beef producer and fifth-largest exporter. Since the late 1970's, however, Argentina's beef production and exports have decreased, particularly as a share of world output and exports. The country's economic problems throughout the 1980's reduced incentives for long-term investments such as cattle production. Beef, a staple in Argentina, suffered from government efforts such as price controls and government-imposed "beefless days," aimed at reducing inflation for the urban population. Productivity, particularly in the cow-calf sector, is low, a result of reproductive diseases (such as brucellosis) and, until recently, foot-and-mouth disease (FMD).

Argentina's livestock sector has been less of a beneficiary of the reforms of the 1990's than the grain and oilseed sectors. By the end of 1997, the Argentine cattle inventory stood at 50.3 million head, the lowest in 27 years. The herd had decreased by more than 5 million in less than 5 years. The period included 2 years of drought and several years of strong competition from the more profitable grains and oilseeds, prompting farmers to increase slaughter in order to devote more land to crops. Real cattle prices had been dropping since 1992, while production costs and taxes remained high.

Structural deficiencies continue to prevail in the livestock sector. It has been one of the last sectors in agriculture to receive fresh capital, for a number of reasons. Real interest rates remain high, reducing the attractiveness of long-term investment in cattle and beef production. Tax evasion through black market sales has proved to be a particularly tough and pervasive problem in the livestock sector. The government is trying hard to control the tax evasion in an effort to encourage more local and foreign investment. Until recently, foreign direct investment, while estimated to have grown significantly in the overall food sector in the early 1990's, had been notoriously absent in the beef processing sector.

At present, the main factor constraining production is the inefficiency of the cow-calf sector. Although existing technology would allow for at least a doubling of average productivity in most areas, technology adoption by farmers has been very low, hampered by owner absenteeism, low educational level of the average cow-calf operator, and inefficient farm size. In addition, past periods of economic instability were not conducive to long-term investments such as cattle. Recent developments, however, suggest that this may be changing. Advanced producers, for example, have adopted a very successful practice called "early weaning," whereby calves are weaned (with supplementation) when they are between 2-3 months old, allowing the cows, and especially the heifers, to improve their body condition sooner, thereby dramatically improving pregnancy rates.

The most significant recent development in the Argentine livestock sector was the U.S. announcement in August 1997 that it would begin importing fresh boneless beef from Argentina under a 20,000-ton quota, after more than 60 years of prohibition. The presence of FMD had effectively banned Argentine beef from the world market for FMD-free fresh and frozen beef. In 1990, the Argentine National Animal Health Service initiated a comprehensive FMD vaccination program. At the time of the U.S. announcement, there had been no outbreak of the disease in over 3 years.

New markets should now open for Argentine beef in Asia as well. This will help the cattle industry to stabilize and possibly begin expanding production, although the current financial and economic crisis currently plaguing Indonesia, Thailand, Malaysia, the Philippines, and South Korea will have a short-term negative impact on their imports of agricultural commodities, especially high-value products such as red meats.

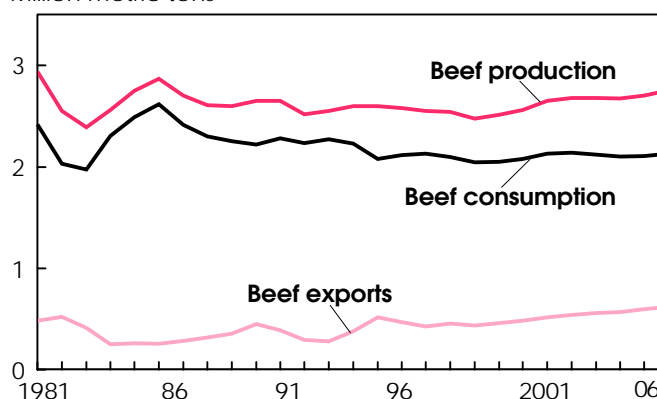
Growth Picture for The Next 10 Years

Can Argentine agriculture sustain the growth of the last few years? USDA's 1998 baseline includes projections of Argentine production, consumption, and trade for major agricultural commodities over 1998-2007.

Grains. The area under grain cultivation is expected to grow modestly throughout the projection period, from a base of 10.7 million hectares in 1997/98 to 11.4 million by 2007/08—still slightly lower than the 11.7 million hectares harvested in 1996/97. This is explained by wheat area, which jumped to 7.1

Modest Turnaround Projected for Argentina's Cattle Sector Over the Next Decade

Million metric tons



1997 preliminary; 1998 forecast; 1999-2007 projected.

Economic Research Service, USDA

million hectares in 1996/97 from 4.5 million the previous year in response to a sharp price spike.

Wheat area is projected to grow from 5.7 million hectares in 1997/98 to only about 6.3 million by 2007/2008. Average yields, however, are anticipated to grow at about 2 percent per year, so production is expected to reach a record 16.3 million tons and exports a record 11.4 million tons by 2007/2008. This should enable Argentina to maintain its place as fifth-largest wheat exporter in the world, increasing its market share from an estimated 7.8 percent in 1998/99 to 9 percent in 2007/08.

Rice is a relatively small crop in Argentina, but production has been on an upward trend for several years and is expected to continue. Rice area is projected to increase by almost 70 percent, from 235,000 hectares in 1997/98 to 400,000 in 2007/08, and production to more than double to 1.6 million tons.

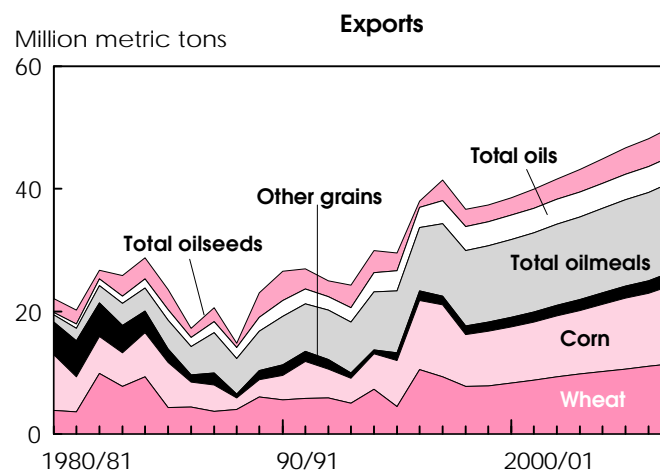
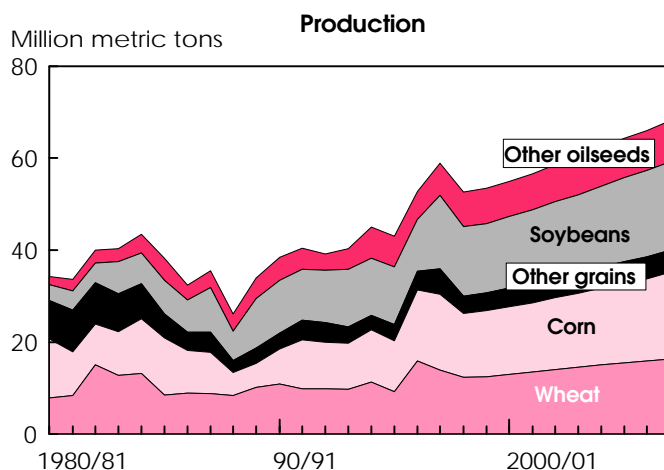
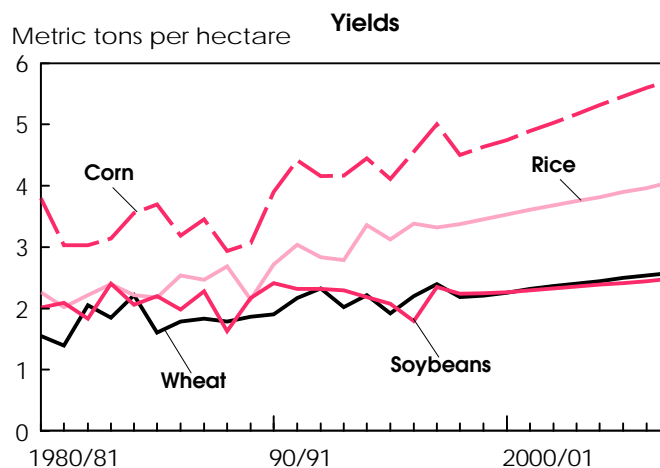
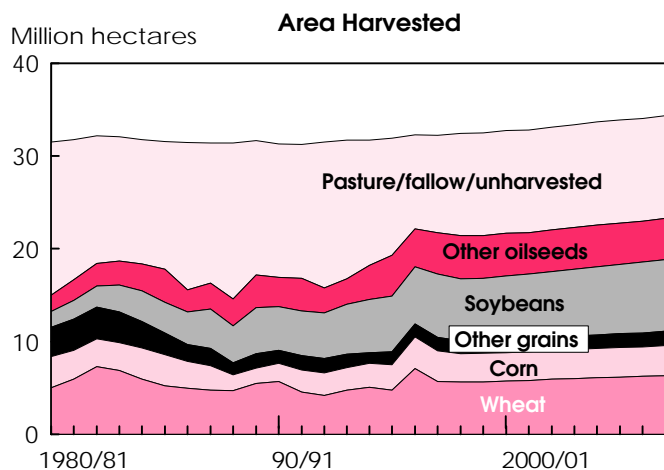
Since the formation of MERCOSUR, the Southern Common Market, the bulk of Argentina's rice exports have been to Brazil. Future growth in the Brazilian market will continue to provide the incentives for growth in Argentina's production. At the same time, improvements in rice quality are underway, which should increase opportunities for Argentine exports in other markets. Argentine rice exports are projected to reach almost 1.4 million tons by 2007/08, from 600,000 tons in 1997/98. Should talk of joint Argentine-Brazilian ventures in the rice sector come to fruition, Argentine production could easily expand beyond baseline projections.

Argentina is the world's second-largest *corn* exporter after the U.S., but its yields are still much lower than those of the U.S. Some analysts believe it is Argentina's corn crop that holds the most potential for expansion via higher yields.

The USDA baseline is projecting that Argentine corn yields will reach an average of 5.75 tons per hectare by 2007/08—still more than 35 percent below the average projected U.S. yields. Given

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Argentina's Grain and Oilseed Sectors To Surpass High Levels of the Mid-1990's



Other oilseeds include rapeseed, peanuts, sunflowerseed, cottonseed, copra, and palm kernels.

Total oilmeals and oils include products of soy, rapeseed, peanuts, sunflowerseed, cottonseed, palm kernels, and fish.

1996/97 preliminary; 1997/98 forecast; 1998/99-2007/08 projected. 1 hectare = 2.47 acres.

Economic Research Service, USDA

that the excellent weather this year is expected to produce yields of about 5 tons per hectare, the level for 2007/08 may well be underestimated. Production for 2007/08 is expected to be about 18.9 million tons, with 12.8 million tons exported. The production number represents an increase of only 15 percent over the estimate for the current year, and may now be considered by many as too modest, as farmers continue to increase their use of inputs, expand their use of hybrid seed, and improve their planting practices. Improved hybrids have several advantages: they can be planted in higher densities, have a shorter growing season, can be sown in lower soil temperatures, and respond better to fertilizer.

Oilseeds. The outlook for oilseeds in Argentina is for continued expansion, although at a slower pace than in the recent past. Rapid expansion in *soybean* area between the early 1970's and the mid-1990's was fueled by the high profits earned by

Argentine soybean farmers. During a period of favorable soybean/corn price ratios between 1985 and 1990, area devoted to corn dropped 1.4 million hectares while soybean area expanded by 1.45 million. Since then, soybean area has continued to expand, moving onto less productive land taken from pasture.

Soybean harvested area is projected to increase from 6.8 million hectares in 1997/98 to about 7.8 million in 2007/08. As much of this additional land will come from increased double-cropping with wheat, yields are expected to grow by a modest 1.2 percent per year. The projected growth in yields may be on the conservative side, however, as more farmers are reportedly moving to shorter maturity varieties that are less prone to early damaging frosts. These varieties can also be planted over a wider geographical area.

Production is expected to increase to 19.5 million tons in 2007/08 from 16 million in 1997/98, while exports are expected to remain in the area of 2.5 million tons. The share of soybeans exported will drop from 16 to 13 percent, with most of the production increase going to the crushing industry. The oilseed crushing industry in Argentina has undergone rapid expansion in the last 10 years, resulting in greater and more efficient capacity. The industry is expected to continue to change, as crushing capacity becomes more concentrated among fewer, more efficient firms. Both local and international firms are expanding or modernizing older plants or building new ones, and it seems likely that the industry will be able to handle the 16-million-ton crush projected in the baseline for 2007/08.

Argentina is currently the world's largest exporter of soybean oil and the second-largest exporter of soybean meal. Most of the soybean meal and oil produced will continue to be exported. Increasing soybean production combined with a larger, more efficient crushing sector and expanding markets for meal and oil should ensure that Argentina remains a world leader in soybean and soyoil exports. Soybean exports are expected to increase from 9.5 million tons in 1997/98 to 12.1 million by 2007/08, while soyoil exports will expand from 2 million to 2.5 million tons.

For *sunflowerseed*, the other major oilseed produced in Argentina, production is projected to expand during the baseline period by about 30 percent, to 7.5 million tons. The bulk of this expansion will come from improved yields, as very little additional area is expected to be devoted to this crop beyond the 3.3 million hectares currently planted. As with soybeans, the vast majority of sunflowerseed will likely continue to be crushed domestically and exported as meal or oil.

Unlike in the grains sector, export taxes still affect the oilseeds sector. To encourage domestic processing, an export tax of 3.5 percent on soybeans is in place, while oil exports obtain an export rebate of 1.35 percent on crude and 3.15 percent on refined. Most Argentine oil exports are of crude oil.

Livestock. Most observers believe that 1998 will see a turnaround in the Argentine cattle industry. A growing domestic economy, the depleted stock of cattle, and strong export prospects buoyed by a clean bill of health on foot-and-mouth disease are expected to put upward pressure on Argentina's cattle prices and initiate a moderate cattle rebuilding phase.

There is renewed investor interest in the cattle sector—cattle, land, and meatpacking operations. The price of feeder cattle is currently 45 percent higher than a year ago. The price of land for breeding cattle is 30 percent higher than the 1977-96 average, while good land for fattening cattle (which is also good for cropping) increased more than 100 percent from the average of the past 20 years.

Key assumptions in the USDA baseline for Argentina are that the cattle birth rate will show a slight but steady increase, that slaughter rates will go up slightly as a result of more efficient feeding and improved pasturing, and that per capita domestic

beef consumption will continue to decline. The decline in consumption is primarily as a result of health considerations, although should Argentina gain widespread access to the Asian beef market, this would put upward pressure on beef prices and could accelerate the move away from beef consumption to poultry and pork consumption.

Beef production is expected to increase from 2.55 million tons in calendar-year 1997 to 2.8 million in 2007. Beef slaughter is expected to decline slightly in the first projection year, allowing modest rebuilding in the cattle inventory. Increased production in the future, however, will depend as much on heavier slaughter weights as on increased herd size.

Per capita beef consumption, which dropped from 85 kilograms per person in 1986 to 60.8 in 1997, is projected to drop further to 55.4 kilograms by 2007. Exports will increase from 455,000 tons in 1997 to 650,000 in 2007.

The baseline assumes that Argentina continues to export primarily grass-fed beef, competing mainly with Australia and perhaps New Zealand, but also that it gains limited access to Asian countries. In order to tap new FMD-free markets in Asia, Argentina's feedlot industry would have to expand in order to supply the grain-fed beef the Asian markets demand. Relative grain and beef prices will be the main factors dictating this expansion; the baseline results suggest that less than 5 percent of Argentina's beef production in 2007 will be produced in feedlots.

In the longer term, Argentina could likely export grain-fed beef to new markets in Asia while continuing to export grass-fed product to Europe and Latin America, as Argentina has the natural resources to significantly expand its feedlot capacity. Any earlier or stronger expansion in feedlot production than anticipated in the baseline would have implications for the level of grains and oilmeals available for export.

USDA's baseline projections are not intended to forecast the future, but rather to construct a picture of Argentina's agricultural sector under a set of specific assumptions and outcomes. The results are the product of many approaches, including modeling and expert analysis, and are predicated on the assumption that Argentina's current macroeconomic and agricultural policies continue through the projection period. This assumes that the government can continue to support the Argentine currency at the rate of one peso to the dollar, a policy that has been successful until now. It also assumes continuation of a program of monetary stability and fiscal austerity that will keep inflation in check. These measures in turn are assumed to lead to real GDP growth during the next 10 years of about 4.5 percent annually.

The projections were made based on information as of November 1997, assuming average weather and yields for 1997/98 and beyond. Projected prices for the major commodities are expected to continue to decline through 2007, but at a slower rate than long-term trends.

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What's Ahead

The reforms of the 1990's paved the way for an expansion in the acreage planted to grains and oilseeds to take advantage of strong world prices in the mid-1990's. Most significantly, producers are rapidly expanding their use of fertilizers and agricultural chemicals. In addition to contributing to higher yields, the increased input use and improved crop cultivation practices are having an impact on traditional crop/livestock rotational schemes, making additional land available for cropping.

High profit expectation—the result of strong prices, low inflation, and wide adoption of modern technology aided by excellent weather—have led to successive unprecedented grain and oilseed crops in 1996/97 and 1997/98, on harvested area the size of which was not envisioned even as recently as 4 years ago. Pasture land previously used for cattle was diverted to crops in 1996/97. At current and projected prices for crops and cattle, very little of this land is likely to revert back to livestock.

About 30 million hectares in Argentina are fit for grain and oilseed farming. Some of this land is still being used exclusively for cattle and will probably eventually become almost exclusively cropland. Much of the cattle production found in the central

Pampa has already been moved to more marginal areas in the region, where further technological development will be needed in order to maintain or improve production efficiency. According to some sources, the Argentine cattle/beef business is just now beginning to undergo a process of improved management and greater use of technology, similar to that which the crop sector is currently undergoing, although the pace for livestock is expected to be slower.

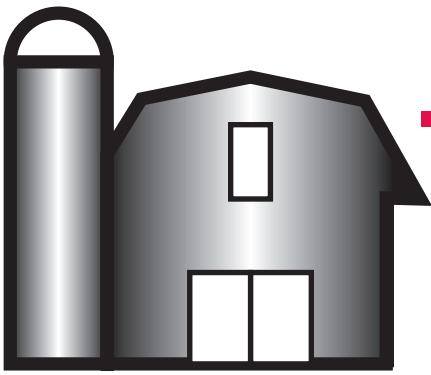
Whether and when these changes will take place, Argentina has already come a long way toward reshaping its agricultural sector. With an expanded and more efficient productive base, a more modernized and less costly marketing system, and market-oriented government policies, the country appears poised to exploit a growing international demand for agricultural products. Argentina has always been dependent on export markets as an outlet for the bulk of its grain and oilseed production, and with a relatively small, slow-growing population and already high per capita consumption rates, most of the future increases in output will find its way onto world markets.

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USDA's baseline projections to 2007—international focus

Free trade scenario for the Americas



Announcing . . .

The 1997 Census of Agriculture

The census of agriculture is a complete accounting of U.S. agricultural production and the only source of uniform, comprehensive agricultural data for ***every county*** in the Nation. Taken every 5 years, it was last conducted in 1992 by the Bureau of the Census. The census of agriculture now is the responsibility of a USDA agency, the National Agricultural Statistics Service (NASS).

In late December 1997, questionnaires were mailed to farmers and ranchers across the U.S. The census defines a farm as any operation where \$1,000 or more of agricultural products was produced and sold, or normally would have been sold, during the census year. The 1997 Census of Agriculture will be similar to the 1992 and 1987 censuses, containing data on:

- *land use and ownership*
- *operator characteristics*
- *crops area & production*
- *machinery & equipment*
- *livestock*
- *fertilizer*
- *poultry*
- *chemicals*
- *value of products*
- *energy expenditures*
- *irrigated land*
- *production expenses*
- *type of organization*
- *farm programs*
- *corporate structure*

Census of Agriculture Publications, 1992

Agricultural Atlas
Census History
Congressional Tabulation
Coverage Evaluation
Farm & Ranch Irrigation
Geographic Area Series - Vol. 1
Horticulture Specialties (1987)
Outlying Areas
Public Use File
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Next year's annual issue of the ERS-NASS Catalog will provide up-to-date information on products and services that will be available from the 1997 Census of Agriculture.